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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

BENNETT, JENNIFER D

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/542,971	Applicant(s) AKKERMAN ET AL.	
	Examiner JENNIFER BENNETT	Art Unit 2878	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 September 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-9 and 11-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-9 and 11-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on September 2, 2010 has been entered.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claim 6 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

In regards to claim 6, it is unclear to the examiner what the limitation "rank" is referring to with respect to the images. It is not clearly described in the specification it is only mentioned in claim 6. For examining purposes, the Examiner will interpret the limitation to mean images that are recorded at the same position on the package.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claim 1, 3, 4, 6, 7, 12-17, and 19 is rejected under 35 U.S.C. 102(b) as being anticipated by Cronshaw et al (US 6275603).

Re claim 1: Cronshaw teaches a method for inspecting packagings for a liquid product (abstract) (fig. 1-4), comprising: setting a packaging (1) into rotation (1 is set into rotation around 104), irradiating (30) the packaging during the rotation with radiation of a predetermined wavelength (col. 4, lines 44-49), making at least one series of at least two two-dimensional image (col. 6, lines 11-12) recordings of at least a part of the content of the packaging during the rotation (the bottles are rotating around point 104) with an image recording device suitable for making two-dimensional recordings at the predetermined wavelength for detecting displacement of undesired particles (col. 6, lines 4-17), wherein during a two-dimensional image recording, the packaging is situated in a predetermined rotational position relative to the image recording device (the package itself rotates around its axis then stops for a period of time, col. 9, lines 12-18), and wherein the packaging is situated in substantially the same rotational position relative to the image recording device during successive two-dimensional image recordings of the series (col. 6, lines 11-12, the package is spun and stopped at a

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certain rotational angle then two successive images are taken to detect the displacement of particles).

Re claim 3: Cronshaw teaches the method, wherein successive two-dimensional image recordings of the series are made with an intervening time interval of a predetermined duration (see fig. 3, I1 and I2 there is an intervening time interval).

Re claim 4: Cronshaw teaches the method, wherein the rotation speed is varied during the period in which the two-dimensional image recordings of a series are made (the bottles are rotated in stage 110 with different rotational speeds, see fig. 3, while other bottles are being imaged and rotating around 104).

Re claim 6: Cronshaw teaches the method, wherein a plurality of series of two-dimensional image recordings are made wherein two-dimensional image recordings of the same rank from different series are made successively (images I1 and I2 are of the same rank, see fig. 3, col. 8, lines 29-36).

Re claim 7: Cronshaw teaches the method, comprising steps for comparing the image information from the two-dimensional images of a series to detect the presence of undesired particles in the packaging (col. 6, lines 4-17).

Re claim 12: Cronshaw teaches a method for inspecting containers for a liquid product (abstract) (fig. 1-4), comprising: setting a container (1) into rotation (1 is set into rotation around 104), irradiating (30) the container during the rotation with radiation of a predetermined wavelength (col. 4, lines 44-49), making at least one series of at least two two-dimensional image (col. 6, lines 11-12) recordings of at least a part of the content of the packaging during the rotation (the bottles are rotating around point 104)

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with an image recording device suitable for making two-dimensional recordings at the predetermined wavelength for detecting displacement of undesired particles (col. 6, lines 4-17), wherein during a two-dimensional image recording, the packaging is situated in a predetermined rotational position relative to the image recording device (the package itself rotates around its axis then stops for a period of time, col. 9, lines 12-18), and wherein the packaging is situated in substantially the same rotational position relative to the image recording device during successive two-dimensional image recordings of the series (col. 6, lines 11-12, the package is spun and stopped at a certain rotational angle then two successive images are taken to detect the displacement of particles), wherein the image recording device (40) is positionable at an angle ranging from greater than 90 degrees and less than 180 degrees from the container's axis of rotation (see fig. 1, col. 4, lines 66-67 and col. 5, lines 1-3).

Re claim 13: Cronshaw teaches the method, wherein the radiation of the predetermined wavelength contacts the container at an angle greater than 90 degrees and less than 180 degrees from the axis of rotation (see fig. 1).

Re claim 14: Cronshaw teaches the method, wherein the radiation of the predetermined wavelength contacts the packaging at an angle greater than 90 degrees and less than 180 degrees from the axis of rotation (see fig. 1).

Re claims 15 and 16: Cronshaw teaches the method, wherein the packaging/container is maintained in rotation during the successive two-dimensional image recordings of the series (the packages/containers, 1, are maintained in rotation around point 104 while the two successive images are taken).

Re claims 17 and 19: Cronshaw teaches the method, wherein the undesired particles comprise glass particles (abstract).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 5, 8, 9, 11 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cronshaw et al (US 6275603) in view of Katane et al. (US 6882422).

Re claim 5: Cronshaw teaches the method, wherein the rotation speed is varied during the period in which the two-dimensional image recordings of a series are made (the bottles are rotated in stage 110 with different rotational speeds, see fig. 3, while other bottles are being imaged and rotating around 104). Cronshaw does not teach the method, wherein the rotation direction is varied during the period in which the two-dimensional image recordings of a series are made. One of ordinary skill in the art would have also changed direction of the packages rotation in order to more accurately detect foreign objects within the package. As further evidenced by Katane, who teaches a method, wherein the rotation direction is varied during the period in which the two-dimensional image recordings of a series are made (col. 5, lines 16-20). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use different rotational speeds as in Cronshaw or different directions of rotation as in

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Katane in order to more accurately detect foreign objects within the package providing for more accurate discrimination between good and bad packages.

Re claim 8: Cronshaw teaches the method, wherein the image recording device comprises a camera (40, is a camera) activated to make a two-dimensional image recording by a signal supplied from the camera (the camera takes a plurality of successive images of the bottle one it has entered the rotation device, see fig. 4).

Cronshaw does not specifically state that the signal comes from outside the camera by a rotation generating device. One of ordinary skill in the art would have used a signal from the rotation device to control the camera in order to ensure that the camera takes of the bottle when it enters the system providing for more accurate imaging of the same position on the bottle. As further evidenced by Katane, who teaches a method, wherein an image recording device (2, 3, 4) comprises a camera activated to make a two-dimensional image recording by a signal supplied from outside the camera by a rotation generating device (see fig. 1 and 2, the bottles are rotated around and the imagers are controlled to image the bottles as they enter the section, col. 4, lines 40-42). It would have been obvious to one of ordinary skill in the art at the time the invention was made to supply a signal from the rotation generating device as in Katane with the inspection device of Cronshaw in order to better control the image timing providing for more accurate images of the bottled and the particles inside.

Re claim 9: Cronshaw teaches the method, wherein during performing of the method a packaging is placed in a holder (see fig. 3 and 4) comprising a drive unit (there is a drive unit rotating 103 around 104, and there is a drive unit rotating the

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bottles in 110), radiating means (30) (see fig. 1) for generating the radiation. Cronshaw does teach a position-determining means for determining the rotational position of the packaging. One of ordinary skill in the art would use a position determining means to determine the rotation of the packaging in order to ensure each bottle is in the proper position to be imaged for unwanted particles. As further evidenced by Katane, who teaches a method, wherein during performing of a method a packaging (20) is placed in a holder (see fig. 2) comprising a drive unit (see fig. 1 and col. 4, lines 39-42), radiating means (7) for generating the radiation, and position-determining means (9) for determining the rotational position of the packaging (col. 4, lines 39-42). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a position determining means as in Katane with the inspection device of Katane in order to ensure each bottle is in the proper position to be imaged for unwanted particles providing more accurate way to reject bottles with unwanted particles inside.

Re claim 11: Cronshaw teaches a system for performing a method as claimed in claim 1, the system comprising: a rotator (103 and 110) for rotating the packaging; radiating means (30) for irradiating the packaging during the rotation with radiation of a predetermined wavelength (col. 4, lines 44-49), a two-dimensional image recording device (40) suitable for making two-dimensional image recordings at the predetermined wavelength for making at least one series of at least two two-dimensional image recordings of at least a part of the content of the packaging during the rotation (the bottles are rotating around point 104) for detecting displacement of undesired particles (col. 6, lines 4-17), wherein during a two-dimensional image recording, the packaging is

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situated in a predetermined rotational position relative to the image recording device (the package itself rotates around its axis then stops for a period of time, col. 9, lines 12-18). Cronshaw does not specifically teach an orientation determining means for determining the rotational position of the packaging for making successive two-dimensional image recordings of the content of the packaging in substantially the same orientation. One of ordinary skill in the art would use an orientation determining means to determine the rotation of the packaging for making successive two-dimensional image recordings of the content of the packaging in substantially the same orientation in order to ensure each bottle is in the proper position to be imaged for unwanted particles. As further evidenced by Katane, who teaches a method, wherein during performing of a method a packaging (20) is placed in a holder (see fig. 2) comprising a drive unit (see fig. 1 and col. 4, lines 39-42), radiating means (7) for generating the radiation, and orientation determining means (9) for determining the rotational position of the packaging (col. 4, lines 39-42). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use an orientation determining means as in Katane with the inspection device of Katane in order to ensure each bottle is in the proper orientation to be imaged for unwanted particles providing more accurate way to reject bottles with unwanted particles inside.

Re claim 18: Cronshaw teaches the method, wherein the undesired particles comprise glass particles (abstract).

Response to Arguments

8. Applicant's arguments with respect to claims 1, 3-9, and 11-19 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JENNIFER BENNETT whose telephone number is (571)270-3419. The examiner can normally be reached on Monday - Friday 0730 - 1700 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Epps can be reached on 571-272-2328. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/J. B./

/Georgia Y Epps/

Supervisory Patent Examiner, Art Unit 2878